

Fur short on both surfaces, scarcely extending upon the membranes; reddish brown above, paler beneath.

Upper inner incisors bicuspidate, the shorter outer cusp nearly equalled in vertical extent by the unicuspidate outer incisor; lower incisors trifold, not crowded; the single upper premolar close to the canine.

The other species of this subgenus known from Southern Africa are *V. minutus*, Temm., and *V. capensis*, Smith. From both *V. grandidieri* is easily distinguished by the large size of the outer upper incisor.

Length:—head and body 1.75 inch; tail 1.4; ear 0.5; tragus 0.22 × 0.08; forearm 1.25; thumb 0.28; second finger—metacarp. 1.2, first phalanx 0.45, second phalanx 0.55; fourth finger—metacarp. 1.1, first phalanx 0.28, second phalanx 0.2; tibia 0.5; foot and claws 0.3.

The above measurements are taken from the only specimen of this species yet obtained, an adult female with *fetus in utero*, preserved in alcohol in the Paris Museum, which, by the kindness of M. Alph. Milne-Edwards, I have been enabled to examine and describe. It was brought from Zanzibar by M. Grandidier (who has added so much to our knowledge of the fauna of South-eastern Africa and Madagascar), with whose name I have much pleasure in associating the species.

#### BIBLIOGRAPHICAL NOTICES.

*Mongolia, the Tangut Country, and the Solitudes of Northern Tibet, being a Narrative of three Years' Travel in Eastern High Asia* by Lieut.-Col. N. PREJEVALSKY. Translated by E. DELMAR MORGAN, F.R.G.S., with Introduction and Notes by Col. HENRY YULE, C.B. Two volumes: London, 1876. (Sampson Low & Co.)

THE expedition of Colonel Prejevalsky and his zoological discoveries have attracted much attention among naturalists for the last two years. It is with much pleasure therefore that we welcome a translation of the narrative of his journey, which gives us an exact account of the unknown regions into which he penetrated and of their characteristic features and inhabitants. We welcome it with the greater satisfaction because, contrary to what is too often the case with translations, the text is legibly rendered and is written in an agreeable and lively style.

Colonel Prejevalsky, it is stated, was already known as an able explorer when, in 1870, he was selected by the Imperial Geographical Society of St. Petersburg to conduct the present expedition into Southern Mongolia. His narrative commences at Kiaklita, the well-known frontier town on the overland route to Peking, which is

now not unfrequently taken by enterprising travellers, and gives an interesting account of the post-road between that city and the Chinese capital. Here Colonel Prejevalsky's expedition really began, his plans being, by travelling south-west from Peking, to strike the great bend of the Hoang-ho at its most northern point, and, penetrating through the country of Ordos, to reach if possible the great inland lake Koko-nor. This route, we may remind our readers, has seldom, if ever, been taken by recent travellers. Messrs. Huc and Gabet, who traversed nearly the same district on their celebrated journey from Peking to Lhasa in 1845-46, are almost the only exceptions. But their well-known narrative appears to have been drawn up chiefly from recollection, and has so little of the scientific element in it that it is almost useless except as an amusing story-book. Colonel Prejevalsky, therefore, may be said to have selected almost virgin ground for his explorations.

Several months having been consumed in Peking by preliminary arrangements, it was not until the beginning of March that a start was made; and even then, the party not being quite completely organized, a preliminary tour was taken into Northern Mongolia, where the remote lake of Dalai-nor was visited and its birds studied before the grand expedition was commenced.

Having returned to Kalgan on the Kiakhta route about two months later, and made his further arrangements, Col. Prejevalsky effected a final start on the 15th of May, and travelled westwards over the high plateau of Mongolia. Three ranges of mountains (the Sharahada, the Sumahada, and the Inshan systems) were crossed before they arrived on the northern bank of the Hoang-ho. Interesting notes are given of the animals met with in both the plains and the mountain-districts, the most noticeable being the great Argali sheep (*Ovis argali*) and the mountain-antelope (*Antelope caudata*), recently described by M. Milne-Edwards from specimens obtained by Père David. Full particulars are also given respecting the botany and the ethnology of the country passed through. The Hoang-ho was crossed at the ferry of *Lang-hwaisa*, near the important town of Bautu; and the very different country of Ordos was then entered. "Ordos is the country lying within the northern bend of the Yellow River, and bounded on the south by one of the 'Great Walls,' thus lying outside of China proper. It is a level steppe bordered by low hills; and its barren soil, except in the valley of the Hoang-ho, is ill-adapted for agriculture. Colonel Prejevalsky and his companions turned to the right after passing the ferry, and marched along the south bank of the river 290 miles until they recrossed it at Ding-hu. The whole of this country, formerly filled with an industrious population, had been devastated by the Mahommedan insurrection. "Even the footpaths are so overgrown with grass that not a trace of the former inhabitants remains. You may occasionally see a ruined village, or the skeleton of a Mongol half devoured by wolves." But some interesting plants were met with, amongst which were a species of liquorice (*Glycyrrhiza wralensis*), of which the roots are collected in large quantities by the Chinese, and examples of "the remarkable

cross-shaped *Pugionium corautum*, originally described by Gmelin in the last century, but quite unknown to modern botanists."

From Ding-hu, where much trouble was experienced from the Chinese officials, the party proceeded into Ala-shan—"a wild and barren desert, inhabited by Olib Mongols, which forms the southern part of the high plateau of the Gobi." Here, at Din-yuang-ing, a hospitable reception was met with from the ruling Prince, a tributary of the Chinese Empire. After a fortnight's stay in the Ala-shan mountains, and exploration of their fauna and flora, it was decided to return to Peking in order to obtain fresh supplies of money and necessaries for a new journey.

In his second volume Colonel Prejevalsky gives us an account of his second expedition from Peking, in 1872. On this occasion he left Kalgan on March 17th, and returned by the same route to Alashan, where the prince of Alashan and his sons received him with open arms, and were in fact very unwilling to let him go again. After some delay, however, he succeeded in being allowed to join a caravan of Tangutans and Mongols returning from Peking to the temple of Chobsen, situated in the province of Kan-su, only five days' journey from Lake Koko-nor, and arrived there early in July. After spending several months in making zoological and botanical observations in the hitherto unexplored mountains of Kan-su, another start was made, and the much-desired lake reached on the 25th of October. "The dream of my life," says our author, "was thus accomplished, and the object of the expedition gained."

We need not follow our adventurous traveller in his further wanderings. Suffice to say that in a winter journey from Koko-nor he finally penetrated to the banks of the Upper Yang-tse-kiang, only about 27 days' journey (or 500 miles) from Lhasa, where want of funds was the sole obstacle that stopped his further progress. But we strongly recommend every naturalist to read Colonel Prejevalsky's narrative for himself; for a more interesting journal has never come under our perusal. Zoological, botanical, and ethnological notes respecting these unknown regions are interspersed throughout the volumes, and render them especially attractive to those engaged in the study of these sciences.

Colonel Prejevalsky's third volume, which in the original Russian gives a complete account of his biological discoveries, does not form a part of the present edition. But we believe this also is being translated by a person fully competent to the task, and will shortly be given to the English public in another form. P. L. S.

*The School Manual of Geology.* By the late J. B. JUKES, F.R.S. &c. Third Edition, revised and enlarged, by A. J. JUKES-BROWNE, F.G.S. &c. Small 8vo, with numerous illustrations. A. & C. Black: Edinburgh, 1876.

This is one of the best of the smaller geological manuals; and the editor keeps it up to the level of advancing knowledge, as far as an elementary work of this kind requires. Natural operations now